

CLAIMS

1. A gas flow control system for controlling the flow of a gas through an opening of an environment, comprising
  - 5 a flow control member adapted to be mounted in the opening and moveable to adopt any of a plurality of positions,
  - a gas pressure indicator which produces at least one indication of the pressure of the gas in the environment, and
  - a controller which receives and acts upon the indication of the gas pressure to control the position adopted by the flow control member to control the flow of
  - 10 the gas through the opening.
2. A gas flow control system according to claim 1, which controls the flow of the gas to provide a desired rate of gas flow through the opening.
- 15 3. A gas flow control system according to claim 2, which provides a substantially constant rate of gas flow through the opening.
4. A gas flow control system according to claim 2, which provides a variable rate of gas flow through the opening.
- 20 5. A gas flow control system according to claim 2, which controls the flow of the gas to maintain a substantially constant gas pressure in the environment, by providing a variable rate of gas flow through one or more outlet openings and/or one or more inlet openings of the environment.
- 25 6. A gas flow control system according to claim 5, which controls the flow of the gas to maintain a gas pressure in the environment at a substantially constant level above atmospheric pressure, by mounting the flow control member in an opening of the environment, which opens to atmospheric

pressure, and varying the rate of gas flow through the opening to maintain the gas pressure in the environment at the substantially constant level.

7. A gas flow control system according to claim 1, in which the controller  
5 receives a plurality of indications of the gas pressure in the environment, and acts upon each indication to control the flow of the gas through the opening.

8. A gas flow control system according to claim 7, in which the controller establishes a pressure-time relationship, and acts upon one or more  
10 characteristics of the pressure-time relationship.

9. A gas flow control system according to claim 1, in which the gas pressure indicator comprises one or more gas pressure sensors, positioned inside and/or outside the environment.

15 10. A gas flow control system according to claim 9, in which the gas pressure indicator comprises at least one gas pressure sensor positioned inside the environment, i.e. on a first side of the opening, and at least one gas pressure sensor positioned outside the environment, i.e. on a second, opposite, side of  
20 the opening.

11. A gas flow control system according to claim 10, in which the gas pressure indicator uses one or more measurements from each sensor to determine the pressure differential across the opening of the environment.

25 12. A gas flow control system according to claim 11, in which the controller receives and acts upon one or more indications of the pressure differential across the opening to control the flow of the gas through the opening.

13. A gas flow control system according to claim 1, in which the flow control member comprises a blade.

14. A gas flow control system according to claim 1, in which the flow control member is mounted in the opening by means of a pivot mechanism, and pivots about the pivot mechanism to take up any of the plurality of positions.

15. A gas flow control system according to claim 14, in which the flow control member is pivotable through more than 48° of rotation.

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16. A gas flow control system according to claim 15, in which the flow control member is pivotable through substantially 90° of rotation, from a closed position at 0° to an open position at 90°.

15 17. A gas flow control system according to claim 14, comprising drive means, used to drive the pivot mechanism of the flow control member to move the flow control member to adopt a particular position.

18. A gas flow control system according to claim 1, in which the controller is linked to a data output display and a data input device.

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19. A gas flow control system according to claim 1, in which the controller is linked to an alarm, responsive to the indication of the gas pressure in the environment.

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20. A plurality of gas flow control systems linked to a central controller.